Weekly Summary Report
USEPA Oversight, Sauget Area 2, Sauget, IL
WA No. 224-RXBF-05XX / Contract No. 68-W6-0025

Week Ending Friday December 26, 2003

This report summarizes the Remedial Action (RA) work conducted by Solutia and its contractors from December 22, 2003 through December 26, 2003. The current RA fieldwork consists of barrier wall excavating, backfilling, and site preparation.

Contractors Onsite

Inquip Associates Inc. (barrier wall construction contractor)
Pangea Group (construction support services, primary subcontractor to Inquip)
PSI (Professional Service Industries) (geotechnical testing services, subcontractor to Inquip)
URS (primary consultant for Solutia)

Work Performed This Week

Solutia Bankruptcy / Production Halt

Continued discussions were held this week between Solutia and Monsanto concerning the project future and financing. Inquip will continue work at the site until January 12, 2004 to maintain trench stability and to excavate the 'notch' between stations 13+20 and 11+40. The notch has not been excavated to total depth, but on both sides the trench is at bedrock. Production excavation and backfilling occurred during the week on December 22 only. Work throughout the remainder of the week consisted of trench and site maintenance.

Groundwater Migration Control System (GMCS)

The Groundwater Migration Control pumping system pumping rate increased from December 21 through December 23, then decreased thereafter. The river level remained relatively consistent, varing between approximately 380 feet and 387 feet above mean sea level (amsl). The pumping rate at the end of the week was 225 gallons per minute (gpm) (or 75 gpm per extraction well), with a river stage of 386.5 feet amsl.

The gradient from the river to the water levels at the piezometers between December 21 and December 23 was outward to the river on three of four piezometers (by between 0.5 and 1.5 feet). The desired inward gradient of the river to the site consequently resumed after the pumping rate was increased.

Table 1 shows the river and piezometer water elevations on December 26, at 10:00 AM.

Table 1
River and Piezometer Water Elevations – December, 26 2003 (10:00 AM)

	Elevation (ft above mean sea level)
River Level	386.5
Piezometer 1S (northern-most Pz)	385.2
Piezometer 2E	385.9
Piezometer 3E	385.5
Piezometer 4E (southern-most Pz)	385.3

Site Preparation

Pangea was onsite on December 22 and 23, checking, replacing or reinstalling silt fences throughout the site, and restoring and rebuilding clay berms around the exclusion zone.

Stormwater

Following a ¾-inch rain event overnight on December 22, 2003, Pangea pumped stormwater the following day. Contact stormwater, approximately 150,000 gallons, from the exclusion zone and the spoils containment area on the landfill was pumped into the north modutank. The flocculation system operated for several hours during the day and the level was equalized between the north and south modutanks. No stormwater was treated through the filtration skid or carbon columns.

Non-contact stormwater was pumped from the ditch outside the exclusion zone near station 10+80, through a 6-inch HDPE pipeline across the exclusion zone, into the drainage ditch on the western edge of Site R adjacent to the river. The large automatic pumps installed during December were used to pump non-contact stormwater.

Ranney Well Lateral Pipe

No excavation by the mechanical clamshell rig was performed during the week in the location in the north of Site R near the anticipated location of the Ranney Well lateral pipes.

Slurry Mixing

No fresh slurry was mixed in the holding pond this week.

Barrier Wall Construction

Inquip has opened the trench to approximately 1,570 feet in length along the barrier wall alignment, from station 26+20 towards station 10+50 (please refer to Solutia's map for locations). Only one clamshell rig operated during the week, on December 22, 2003.

Bentonite slurry was pumped into the trench as needed to keep the excavation open. An Inquip crew was onsite December 23, 24, and 26 checking the site conditions, trench slurry levels, and performing maintenance as needed through the week. Top and bottom trench slurry samples, together with fresh slurry samples were tested once on December 22, by PSI. The parameters tested on the slurry samples consisted of viscosity, unit weight, filtrate

loss, pH, and sand content. The test results met most specifications. However, the mud density results for trench slurry samples were lower than the specification established for the stabilization area.

Trench depths were measured once the morning of December 22, 2003 prior to backfilling, every 100 linear feet of trench with 20-foot spacing of measurements on either side of the backfill toe. The trench depth measurements from the morning of December 22, are shown in Table 2, depicting the weekly progress. Construction progress by December 22, 2003 is shown below. Graph 1 shows the progress of the trench in comparison to the previous week. Graph 2 shows the overall progress of the barrier wall construction.

During the week, Inquip mixed and placed into the trench approximately 270 cubic yards of backfill material. Backfill was placed on December 22 only. The backfill consisted of spoils with the addition of 15 percent or greater clean clay soil. Backfill was mixed then "back-tracked" into the trench using a bulldozer.

One backfill sample was tested by PSI on site for slump, unit weight and moisture content during the week. The unit weight of the backfill sample was measured at 129 pounds per cubic foot (pcf). The slump test result was 4.0 inches, meeting the requirements. No new test results on the permeability and gradation of the backfill samples were received during the week.

Prior to the backfill operation, the bottom of trench was cleaned using a clamshell rig. Depth-to-bottom measurements were made every 10 linear feet of trench to ensure the bottom of the trench was at a consistent depth and on top of bedrock. These depth measurements were performed with the clamshell rig's instrumentation and confirmed in one location manually with the downrigger (plumbob on wire). Additionally, two samples were collected by URS and PSI with a clam sampler from the top of the placed backfill in the trench. These backfill samples were visually checked to ensure that the backfill surface was clean and free of any sand prior to placing additional backfill.

On December 22, 2003, trench cleaning near the backfill toe (from station 14+60 to 14+40) skipped a section of trench (from station 15+30 to 14+60) that had not previously been cleaned with bedrock depths confirmed. Consequently, next week when trench cleaning and backfill placement resumes, the trench will be recleaned starting at station 15+30, this will likely involve the removal of backfill slumped past the starting point for trench cleaning.

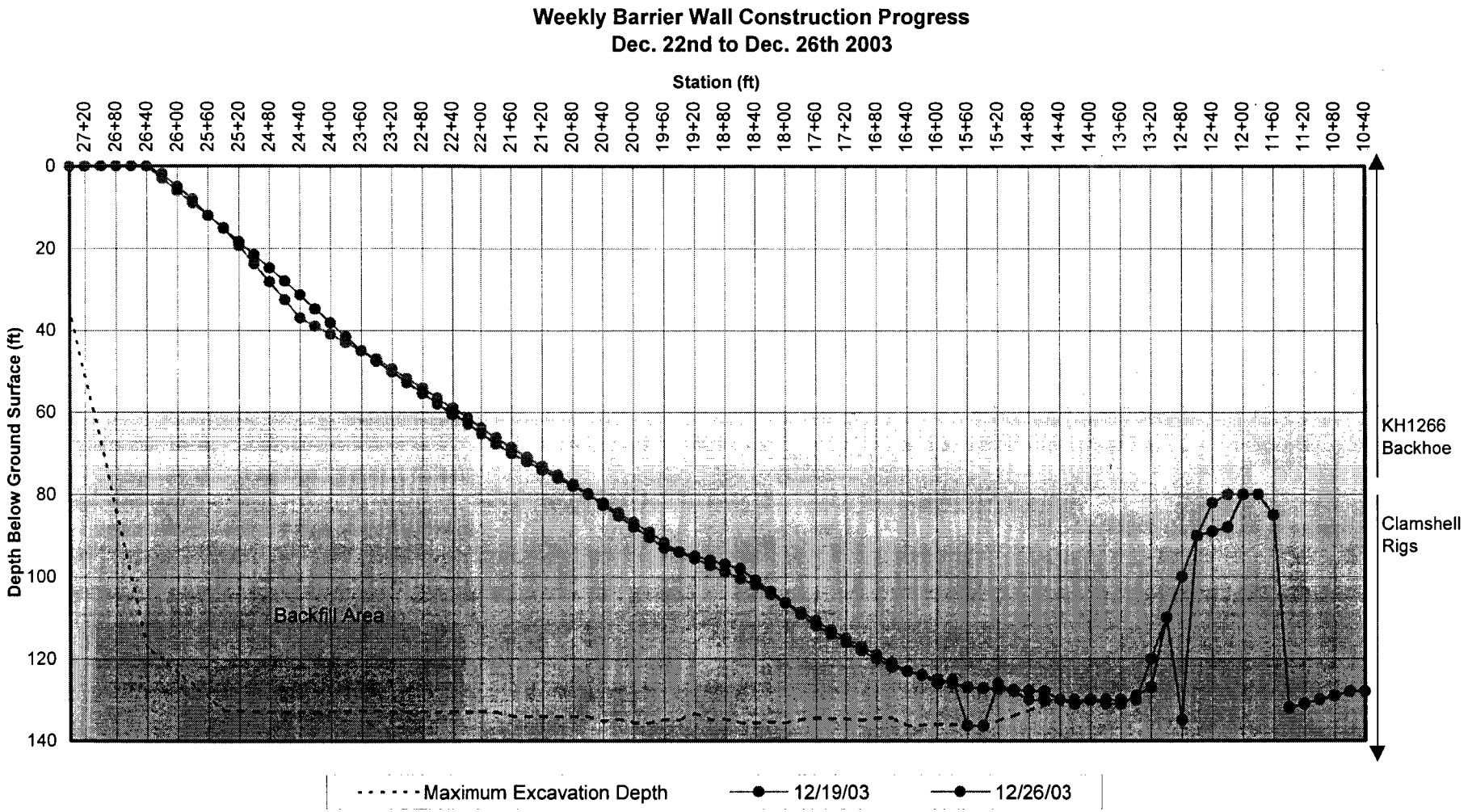
Table 2
Trench Profile (Downrigger Measurements) for the Barrier Wall Trench – December 22, 2003 (AM)

Station ID	Depth to bottom (ft below ground surface)
10+60	118
11+60	67
12+60	80
12+80	135
13+00	110
13+20	127
13+40	129
13+60	131
13+80	131
14+00	130
14+20	131
14+40	130
14+60	128
15+60	127
16+60	122
17+60	112
18+60	98
19+60	93
20+60	80
21+60	70
22+60	58
23+60	45
24+60	28
25+60	12
26+20	2
26+20 to 27+50	Backfill daylighted (level with ground surface)

Note: Distances between stations where trench depth measurements were read varies in Table 2. Measurements are separated by 100 linear feet of trench in most areas, however, the area that delineates the toe of the backfill is measured every 20 feet.

Construction Progress

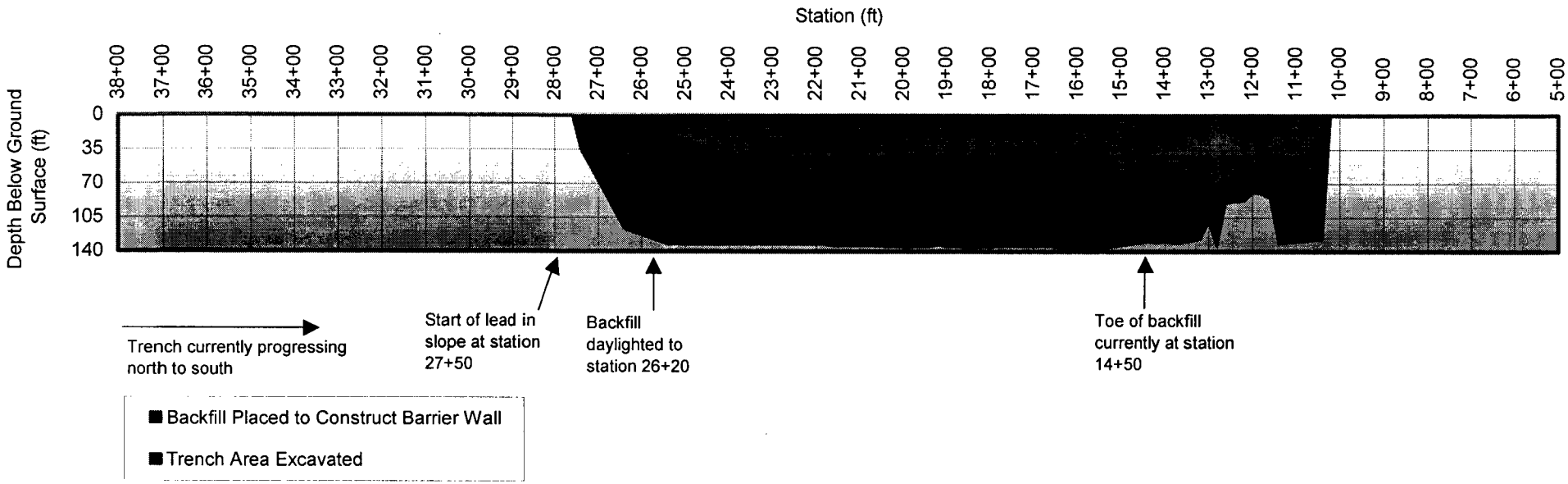
Graph 1



Note: Data plotted for week through AM measurements on 12-22-03 (profile was only measured once during the week).
Some data points are interpolated between the available data points where trench depth measurements were read.

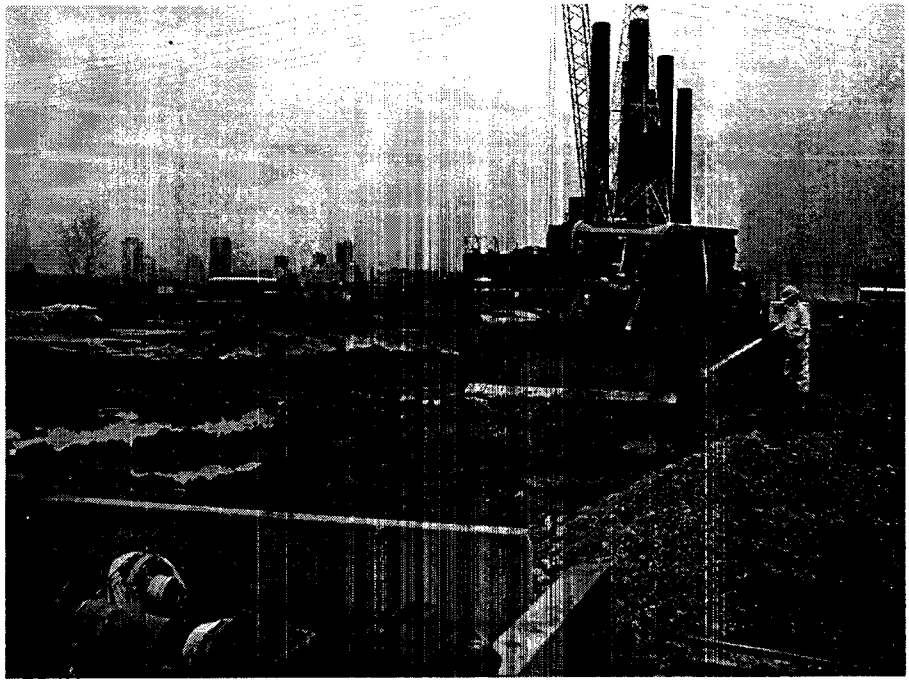
Graph 2

Barrier Wall Construction Progress by December 26, 2003



Note: Data plotted for week through AM measurements on 12-22-03.

Photos Taken between December 22 and December 26, 2003:



Bulldozer was decontaminated following backfill placement (December 22, 2003).

Trench slurry levels were checked and maintained throughout week (December 26, 2003).